

“Advanced ColoRectalCancer” in the elderly; *Just do it?*



Kees Verhoef

Department of Surgical Oncology

Erasmus MC Cancer Institute

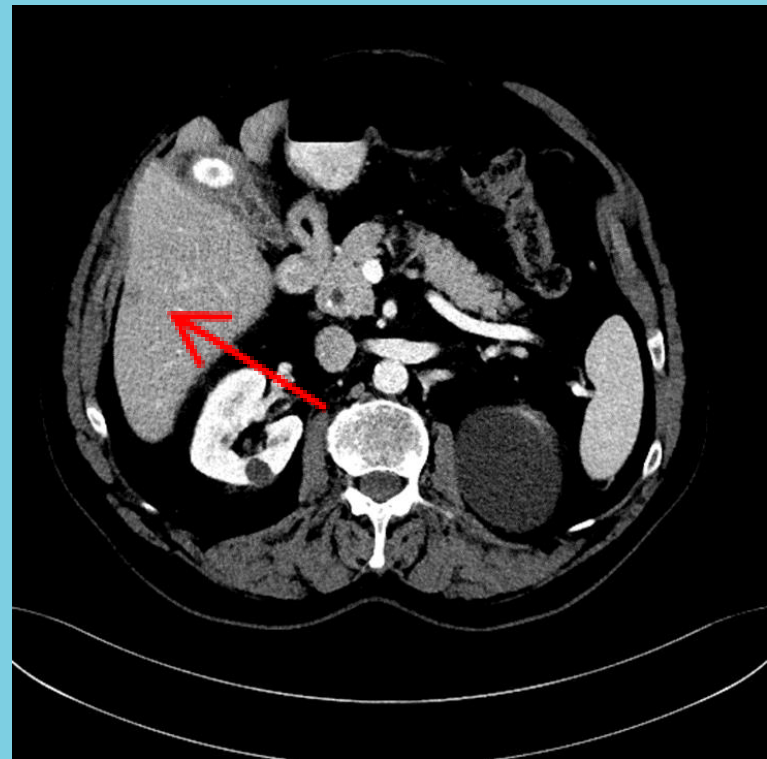
Rotterdam, The Netherlands

Advanced ColoRectalCancer Surgery

- Stage IV CRC
- Locally Advanced CRC
- Locally Recurrent CRC

Case 1

Male, 71 years, 2 years after T3N1M0 rectal cancer

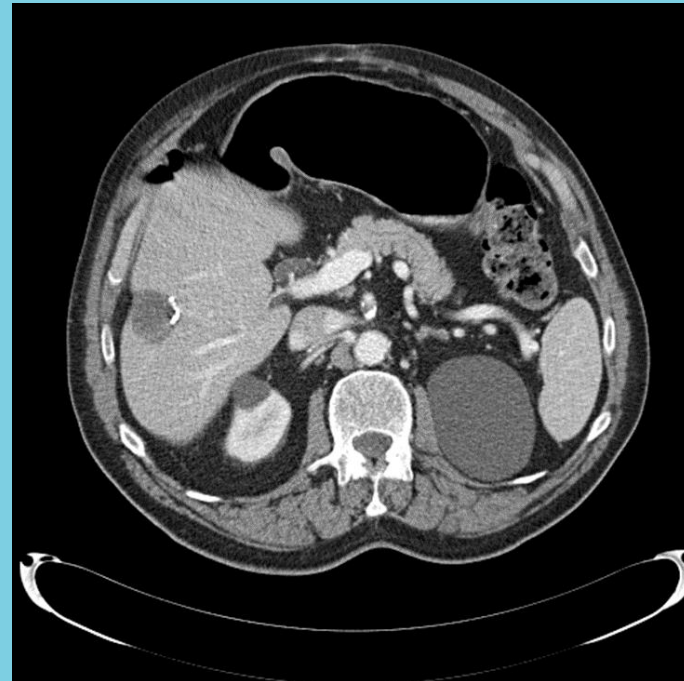


Case 1

Male, 71 years, 2 years after T3N1M0 rectal cancer

Wedge resection

Adjuvant CTx



Case 1

Male, 71 years, 2 years after T3N1M0 rectal cancer

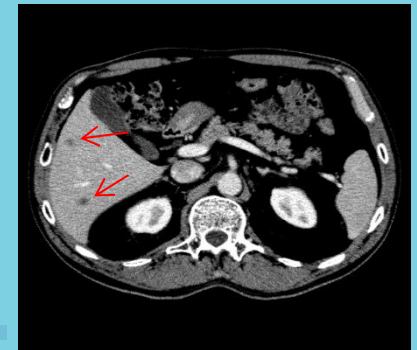
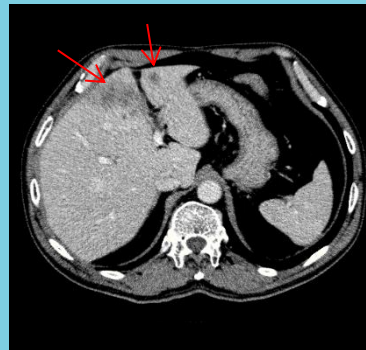
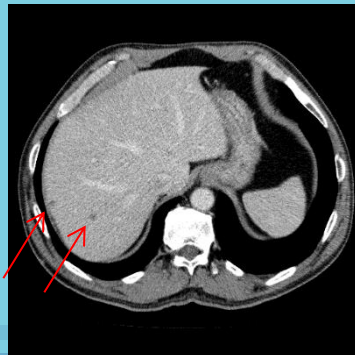
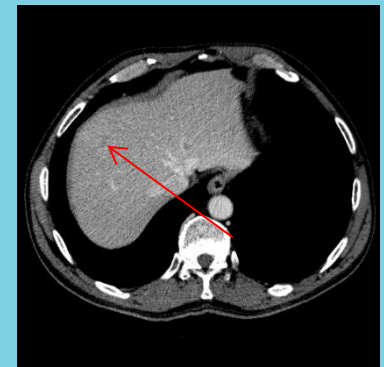
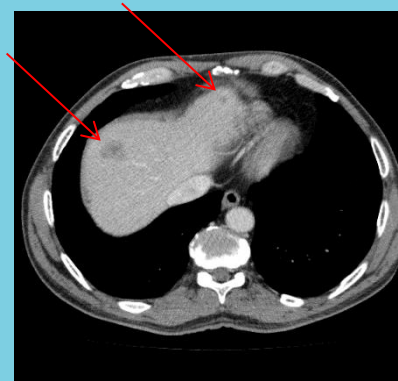
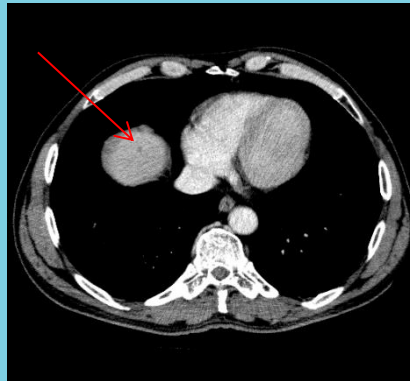
Wedge resection

Adjuvant CTx, after 6 months



Case 2

Male, 77 years, T4N1M1 rectal cancer, 11 liver metastases, 3 lung metastases



Case 2

Male, 77 years, T4N1M1 rectal cancer, 11 liver metastases, 3 lung metastases

Chemotherapy, Liver First; Right Lobe; 5 wedge resections, 2x RFA combined with left hemihepatectomy

CTxRTx locally advanced rectal cancer

3 wedge resection Lung

Total Pelvic Exenteration

Case 2

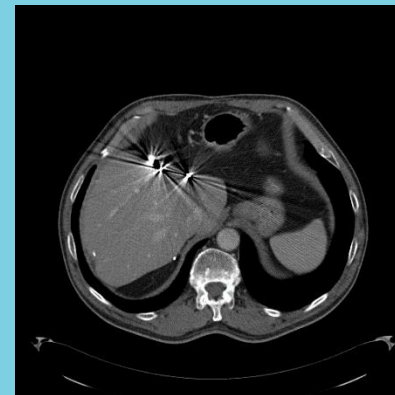
Male, 77 years, T4N1M1 rectal cancer, 11 liver metastases, 3 lung metastases

Chemotherapy, Liver First; Right Lobe: 5 wedge resections, 2x RFA combined with left hemihepatectomy

CTxRTx rectal cancer

3 wedge resection Lung

Total Pelvic Exenteration



After 7 years!!

Advanced ColoRectalCancer Surgery

SELECTION – SELECTION - SELECTION

Morbidity

Mortality

QoL

Survival

Advanced ColoRectalCancer Surgery

- Stage IV CRC

Colo**R**ectal**L**iver**M**etastases

- Locally Advanced CRC

Locally **A**dvanced **R**ectal **C**ancer

- Locally Recurrent CRC

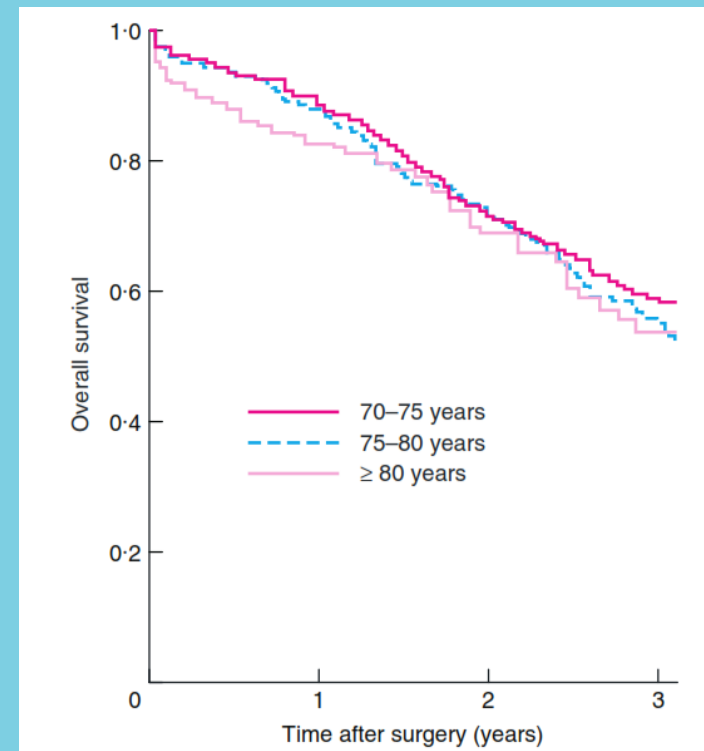
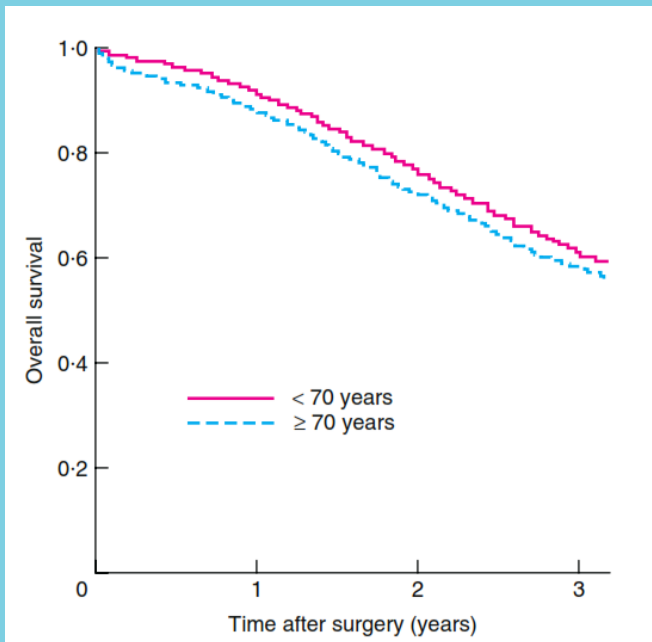
Locally **R**ecurrent **R**ectal **C**ancer

Colorectal Livermetastases Survival

Original article

Liver resection of colorectal metastases in elderly patients

the LiverMetSurvey Centres



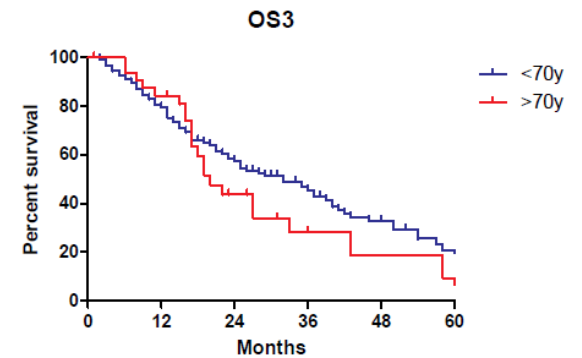
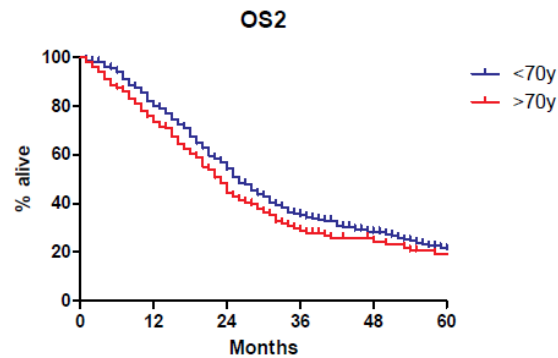
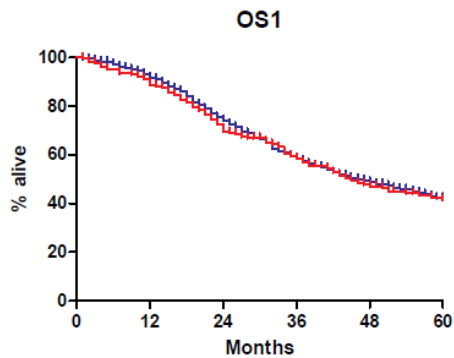
Colorectal Livermetastases Morbidity

Table 2 Postoperative complications and recurrences after the first hepatectomy in elderly and younger patients

	Patients aged < 70 years at first hepatectomy (n = 6140)	Patients aged ≥ 70 years at first hepatectomy (n = 1624)	P§
60-day mortality	101 (1.6)	62 (3.8)	< 0.001
Postoperative complications			< 0.001
None	3182 (71.3)	877 (67.7)	
General complications*	556 (12.5)	206 (15.9)	
Hepatic complications†	542 (12.1)	141 (10.9)	
Both	184 (4.1)	72 (5.6)	
Recurrence			< 0.001
None	3158 (64.4)	1011 (71.9)	
Liver	694 (14.2)	144 (10.2)	
Extrahepatic	530 (10.8)	152 (10.8)	
Both	520 (10.6)	100 (7.1)	
Repeat hepatectomy	867 (14.1)	123 (7.6)	< 0.001

Colorectal Livermetastases

Erasmus MC Cancer Institute



Met dank aan Eric van der Stok en Boris Galjart

Colorectal Livermetastases

Erasmus MC Cancer Institute

	<70 years (n=545)	≥70 years (n=221)	p-value
Comorbidity	52,8%	74,5%	<0,0001 *
ASA III	6.9%	13,2%	0,007 *
Major hepatic resection: (Surgery in ≥3 segments)	50,3%	39,9%	0,010 *
Hemi-Hepatectomy	25,2%	22,7%	0,467
Hospital days	5 (IQR 4-9)	5 (IQR 4-8)	0,850
Complications:			
Yes	23,0%	34,0%	0,019 *
Dindo Clavien 3-5	5,9%	10,9%	0,016 *
90-days mortality	0,9%	2,7%	0,058

Met dank aan Eric van der Stok en Boris Galjart

Colorectal Livermetastases

QoL, short term

Patient-Reported Outcomes After Hepatic Resection of Colorectal Cancer Metastases

Jonathan R. Rees, Jane M. Blazeby, Peter Fayers, Elizabeth A. Friend, Fenella K.S. Welsh, Timothy G. John, and Myrddin Rees

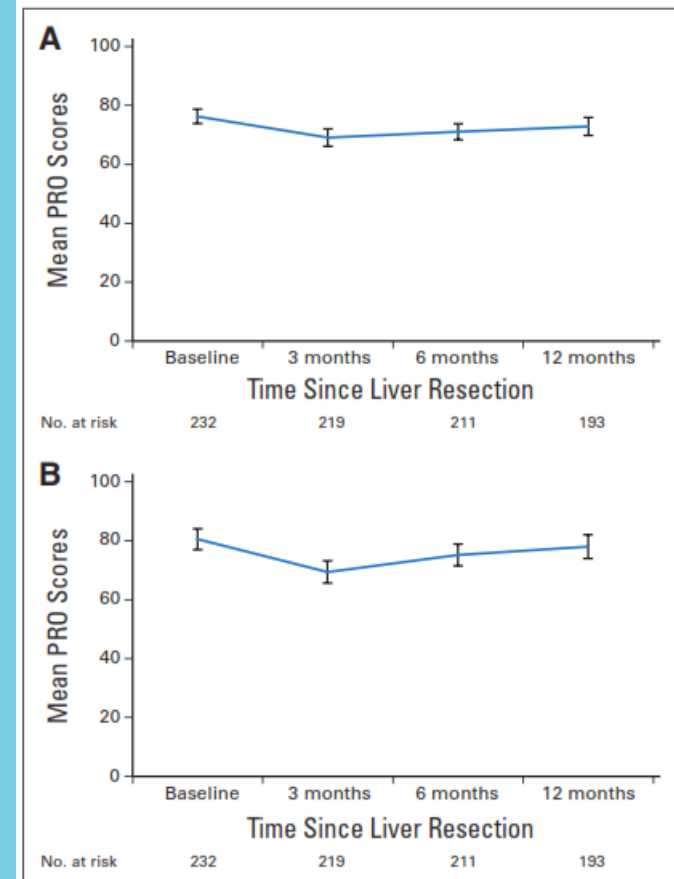


Fig 1. Mean patient-reported outcome (PRO) scores assessed by European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire-C30 regarding (A) global health-related quality of life and (B) role function. Error bars mark 95% CIs for each of the scores. A higher score reflects better function.

Colorectal Livermetastases

QoL, long term

EORTC QLQ-C30 scales and items*	Long-term survivors reporting severe symptoms before surgery (%) (n = 68)	Severe symptoms at long-term follow-up (%) (n = 68)	Change from baseline to long-term follow-up (%)	P†
Fatigue	6 (2, 18)	3 (5, 13)	-3 (-15, 9)	1.000
Nausea and vomiting	6 (2, 18)	3 (5, 13)	-3 (-15, 9)	1.000
Pain	3 (0, 14)	3 (5, 13)	0 (-11, 5)	1.000
Dyspnoea	3 (0, 14)	8 (3, 20)	5 (-10, 15)	1.000
Insomnia	11 (4, 25)	3 (5, 13)	-8 (-23, 6)	0.380
Appetite loss	3 (0, 14)	0 (0, 9)	-3 (-11, 5)	1.000
Constipation	0 (0, 10)	10 (4, 24)	10 (-2, 25)	0.130
Diarrhoea	3 (0, 15)	8 (3, 22)	5 (-5, 18)	0.500
Abdominal pain	3 (1, 14)	5 (2, 17)	2 (-5, 11)	1.000
Activity/vigour problems	14 (6, 29)	8 (3, 21)	-6 (-22, 10)	0.690
Eating problems	0 (0, 10)	0 (0, 9)	0 (-3, 3)	1.000
Taste problems	0 (0, 10)	3 (1, 14)	3 (-5, 11)	1.000
Dry mouth	0 (0, 10)	3 (1, 15)	3 (-6, 13)	1.000
Sore mouth/tongue	3 (1, 14)	0 (0, 9)	-3 (-11, 5)	1.000
Peripheral neuropathy	9 (3, 22)	11 (4, 25)	2 (-12, 17)	1.000
Jaundice	3 (1, 14)	3 (1, 14)	0 (-11, 10)	1.000
Anxiety problems	28 (16, 44)	3 (1, 14)	-25 (-42, -8)	0.004
Sexual function	29 (16, 45)	30 (17, 47)	2 (-24, 27)	1.000
Nutritional issues	3 (1, 14)	5 (2, 17)	2 (-5, 11)	1.000

Colorectal Livermetastases

QoL, long term

EORTC QLQ-C30 functional scales*	Preop. score in long-term survivors (<i>n</i> = 68)	Score at long-term follow-up (<i>n</i> = 68)	Change in score from baseline to long-term follow-up	<i>P</i> †
Global health	78 (71, 84)	86 (82, 90)	8 (2, 15)	0.012
Physical function	93 (89, 97)	89 (84, 93)	-4 (-9, 1)	0.091
Emotional function	75 (68, 82)	92 (87, 96)	17 (10, 24)	<0.001
Social function	82 (73, 91)	94 (89, 99)	12 (3, 21)	0.009
Role function	82 (75, 90)	94 (90, 98)	12 (3, 20)	0.009
Cognitive function	91 (86, 96)	92 (88, 96)	1 (-4, 7)	0.629

Original article

Patient-reported outcomes in long-term survivors of metastatic colorectal cancer needing liver resection

J. R. Rees^{1,2}, J. M. Blazeby^{1,2}, S. T. Brookes¹, T. John³, F. K. Welsh³ and M. Rees³

Locally Advanced Rectal Cancer Survival

Survival after pelvic exenteration for T4 rectal cancer

M. Kusters^{1,2}, K. K. S. Austin^{3,4}, M. J. Solomon^{3,4}, P. J. Lee^{3,4}, G. A. P. Nieuwenhuijzen¹ and H. J. T. Rutten^{1,2}

BJS 2015; **102**: 125–131

Survival

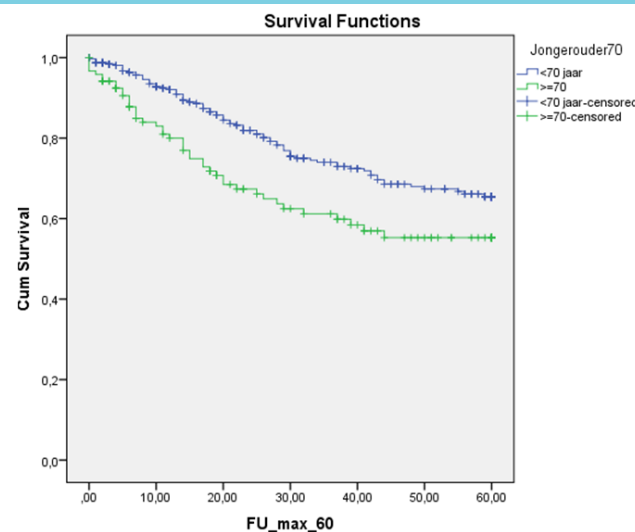
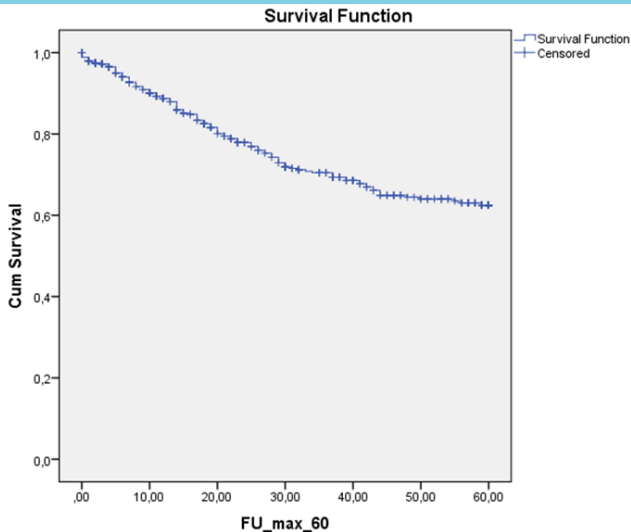
The overall 5-year survival rate was 62 per cent.

Table 4 Univariable Cox regression analysis of factors affecting recurrence and survival

	Local recurrence		Distant metastasis		Cancer-specific survival		Overall survival	
	Hazard ratio	<i>P</i>	Hazard ratio	<i>P</i>	Hazard ratio	<i>P</i>	Hazard ratio	<i>P</i>
Age (years)		0.151		0.805		0.194		0.101
< 70	1.00 (reference)		1.00 (reference)		1.00 (reference)		1.00 (reference)	
≥70	2.42 (0.73, 8.07)		1.17 (0.35, 3.91)		1.90 (0.72, 5.02)		1.91 (0.88, 4.16)	

Locally Advanced Rectal Cancer Erasmus MC Cancer Institute

pelvic exenterations : 208 patients with T4 rectal cancer
<70 years: 156 pts
70+ years: 52 pts



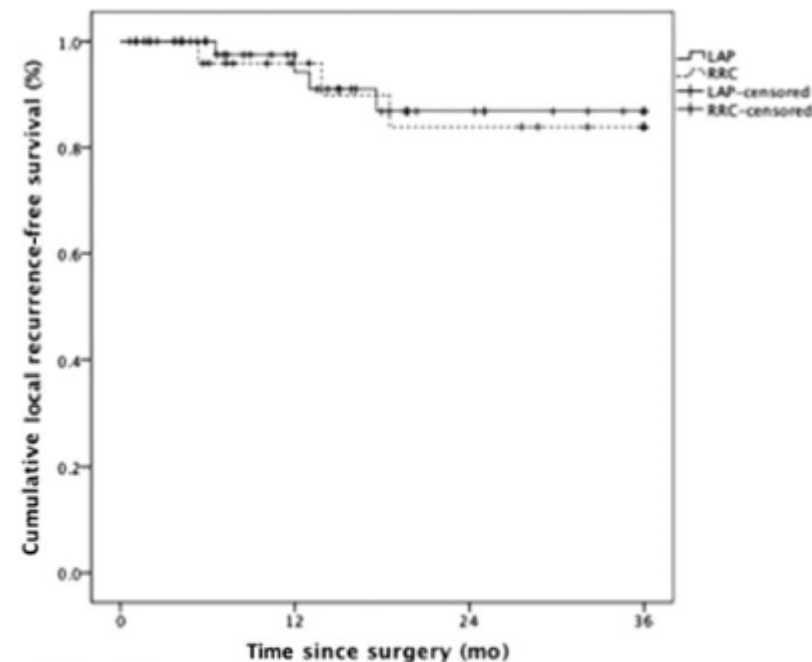
5-year overall survival:
<70; 63%
70+; 51%
 $p=0.058$

Met dank aan Wijnand Alberda

Locally Recurrent Rectal Cancer

Indications and Outcome of Pelvic Exenteration for Locally Advanced Primary and Recurrent Rectal Cancer

Ann Surg 2014;259: 315–322



Patients at risk:

	0	12	24	36
LAP	50	29	15	9
RRC	28	17	14	11

3-year OS (R0 resections)
LAP; 78%
LRRC; 65% ($p = 0.461$).

FIGURE 6. Three-year LRFS for locally advanced primary cancer and recurrent rectal cancer after R0 resection ($P = 0.780$).

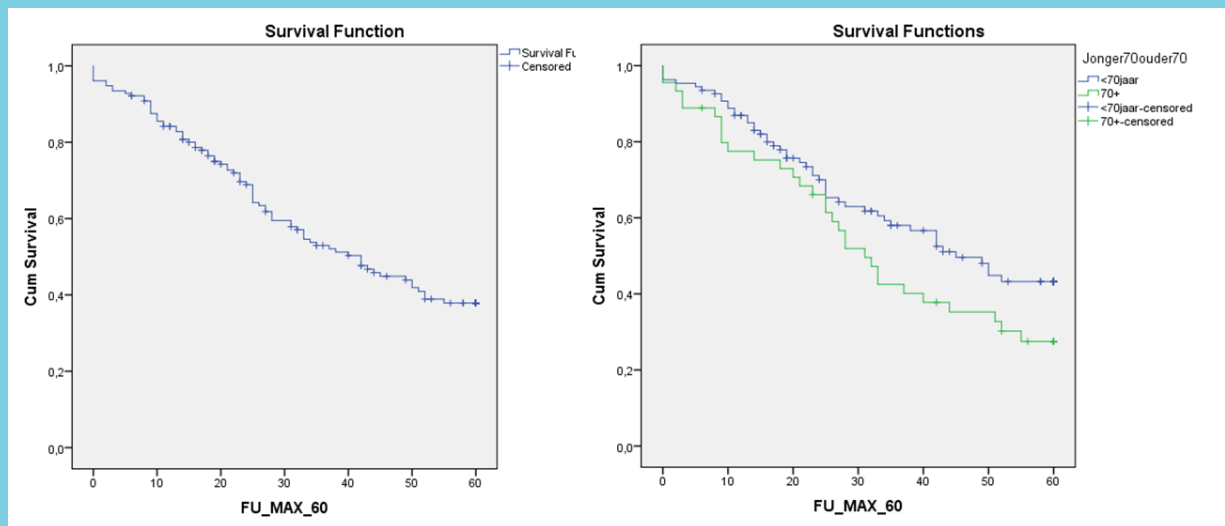
Locally Recurrent Rectal Cancer

Erasmus MC Cancer Institute

LRRC's: 146 patients

<70: 104 pts

70+: 42 pts

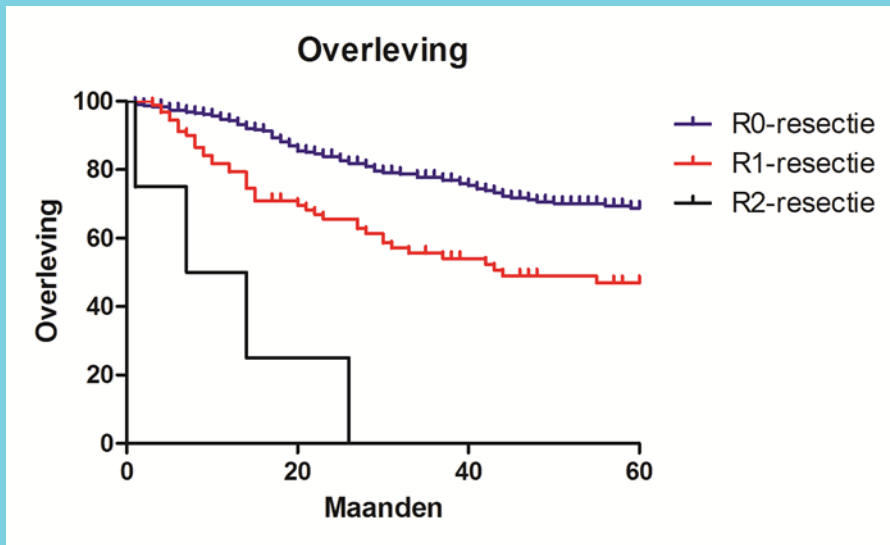


5-year overall survival:
<70; 43%
70+; 28%
 $p=0.08$

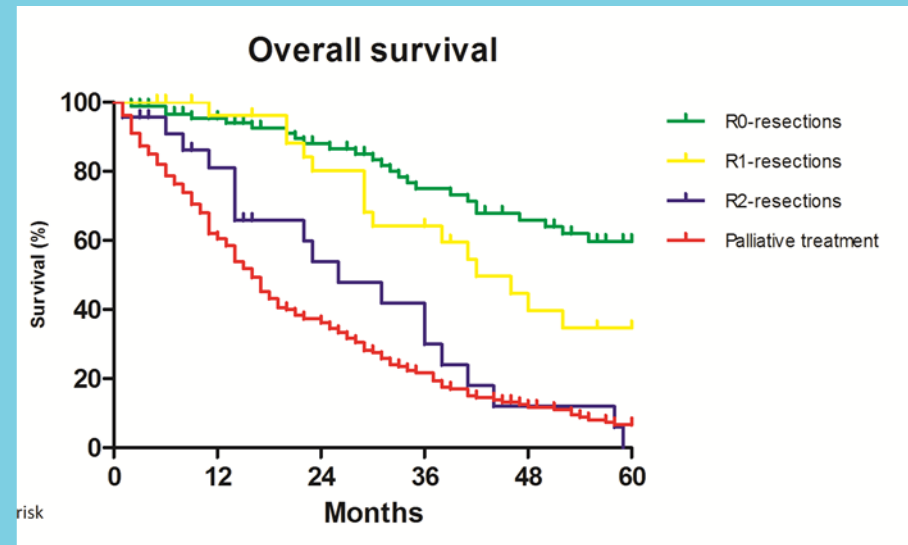
Met dank aan Wijnand Alberda

Locally Advanced/Recurrent Rectal Cancer

Erasmus MC Cancer Institute



Primair loc advanced



Lokaal recidief

Morbidity after Pelvic Exenteration

Survival after pelvic exenteration for T4 rectal cancer

M. Kusters^{1,2}, K. K. S. Austin^{3,4}, M. J. Solomon^{3,4}, P. J. Lee^{3,4}, G. A. P. Nieuwenhuijzen¹ and H. J. T. Rutten^{1,2}

BJS 2015; **102**: 125–131

> 50% of patients suffer complications

	Posterior pelvic exenteration (n = 52)	Total pelvic exenteration (n = 23)	Supralelevator exenteration (n = 20)
Minor			
Wound infection midline	5 (10)	1 (4)	1 (5)
Wound infection perineal	5 (10)	3 (13)	3 (15)
Pulmonary infection	3 (6)	2 (9)	1 (5)
Urinary tract infection	6 (12)	6 (26)	3 (15)
Central venous line infection	2 (4)	0 (0)	0 (0)
Major			
Bleeding requiring reoperation	0 (0)	2 (9)	1 (5)
Wound dehiscence requiring reoperation	1 (2)	3 (13)	2 (10)
Flap necrosis requiring reoperation	4 of 22 (18)	0 (0)	0 (0)
Stoma retraction/leakage requiring reoperation	2 (4)	0 (0)	1 (5)
Intra-abdominal abscess			
Treated with antibiotics	4 (8)	3 (13)	6 (30)
Requiring drainage	2 (4)	2 (9)	5 (25)
Urinary leakage	2 (4)	1 (4)	1 (5)
Urinary leakage			
Ureteric – stent placed	1 (2)	2 (9)	4 (20)
From neobladder	1 (2)	0 (0)	0 (0)
Requiring drainage	n.a.	0 (0)	1 (5)
Requiring reoperation	n.a.	2 (9)	3 (15)
Anastomotic leakage			
Managed with drain	n.a.	0 (0)	3 (15)
Requiring reoperation	n.a.	0 (0)	1 (5)
Leading to death	n.a.	0 (0)	1 (5)

Original article

Pelvic exenteration for advanced malignancy in elderly patients

R. W. Radwan, M. D. Evans, M. Davies, D. A. Harris and J. Beynon, on behalf of Swansea Pelvic Oncology Group

Swansea Pelvic Oncology Group, Abertawe Bro Morgannwg University Local Health Board, Swansea, UK
Correspondence to: Mr R. Radwan, Department of Colorectal Surgery, Abertawe Bro Morgannwg University Local Health Board, Morriston Hospital, Swansea SA6 6NL, UK (e-mail: rwradwan@gmail.com)

Table 3 Postoperative complications

Complication grade*	Rectal	Gynaecological	Bladder
I	0	0	0
II	3	2	1
III	14	4	1
IV	1	0	0
V	2	1	3

*Dindo–Demartines–Clavien classification¹⁴.

Morbidity after Pelvic Exenteration

Erasmus MC Cancer Institute

T4 Rectal Cancer, n=137

Total Pelvic Exenteration	All	<70	70+
Mortality	4%	3%	9%
Morbidity	71%	68%	82%
Clavien-Dindo>2		29%	46%

Recurrent Rectal Cancer, n=72

Total Pelvic Exenteration	All	<70	70+
Mortality	8%	5%	14%
Morbidity	77%	79%	71%
Clavien-Dindo>2		53%	29%

Met dank aan Wijnand Alberda

QoL after Pelvic Exenteration

TABLE 3. Generic quality of life (SF-36v2) of patients following pelvic exenteration compared with the Australian population

TABLE 2. Cancer-specific quality of life (FACT-C) of patients undergoing pelvic exenteration compared with patients following LAR/APE

<i>Subscales</i>	<i>Subscales</i>	<i>Range</i>	<i>Patients with pelvic exenteration (n = 37)^a</i>	<i>Patients with rectal cancer (n = 15)^a</i>
Physical component	PWB	(0–28)	23.7 (4.2)	22.7 (4.3)
Mental component	SWB	(0–28)	21.1 (6.1)	23.6 (4.6)
	EWB	(0–28)	20.6 (4.2)	20.3 (3.6)
	FWB	(0–28)	20.7 (5.3)	18.9 (7.4)
	CCS	(0–28)	21.1 (3.3)	20.9 (3.9)
	Total score	(0–136)	107.3 (15.1)	106.4 (20.3)

FACT-C = Functional Assessment of Cancer Therapy-Colorectal; PWB = physical well-being; SWB = social/family well-being; EWB = emotional well-being; FWB = functional well-being; CCS = colorectal cancer subscale; LAR = low anterior resection; APE = abdominoperineal excision.

^a Values are mean (SD).

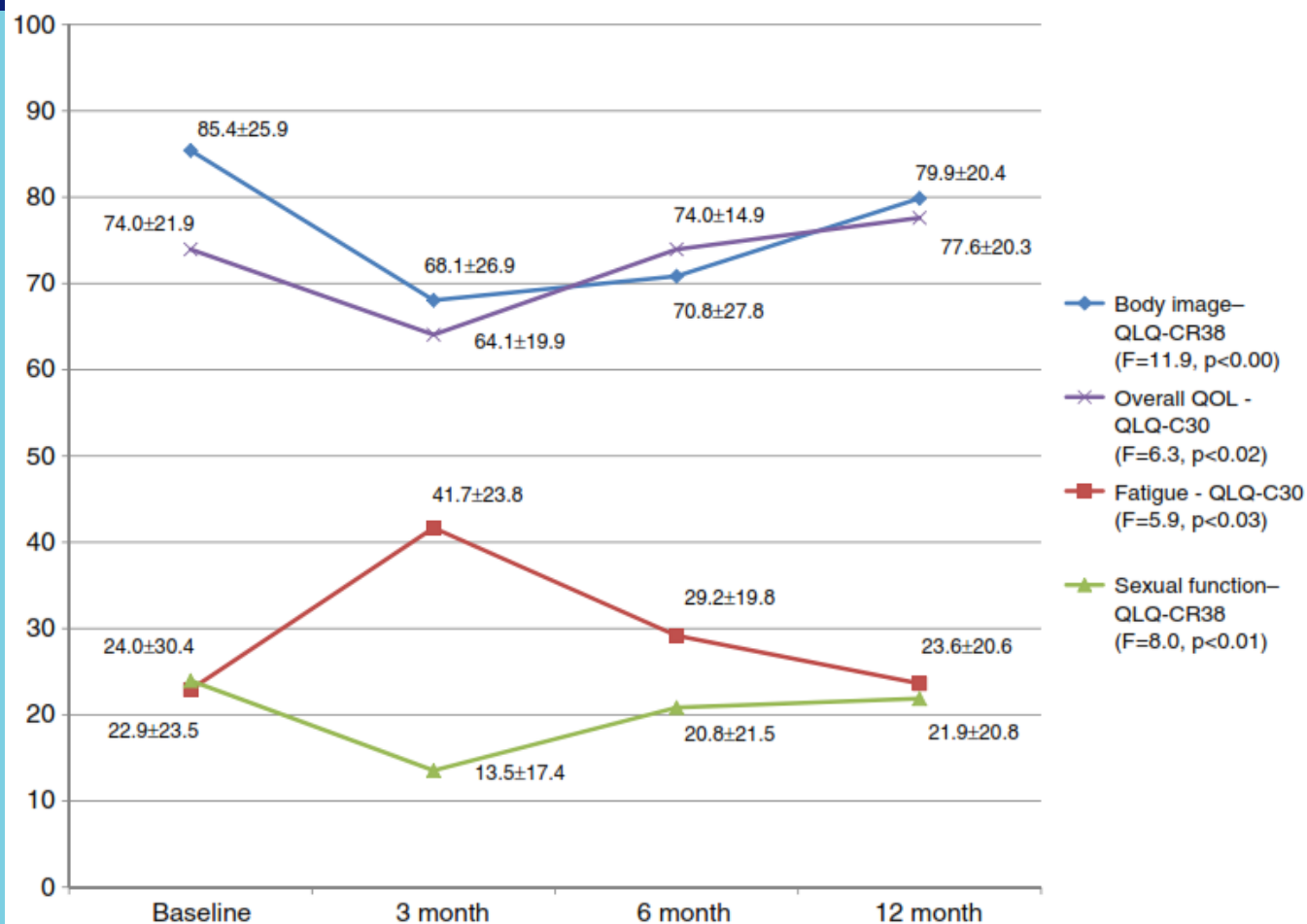
SF-36v2 = Short Form :
^a Values are mean (SD).

QoL after Pelvic Exenteration

Table 3. Mean scores (SD) of general and disease-specific health status by type of surgery stratified by age at time of survey (<70 years and ≥70 years)

	<70 years		≥70 years		p ^a
	TME surgery	Extended surgery	TME surgery	Extended surgery	
	N = 126	N = 78	N = 103	N = 50	
EORTC QLQ-C30 subscales					
Global quality of life ^b	71.3 ± 22.6	67.7 ± 22.0	67.6 ± 23.1	65.3 ± 26.3	0.25
Physical function ^b	84.7 ± 17.9	77.4 ± 19.8	76.5 ± 21.4	74.7 ± 22.2	0.003
Role function ^b	77.2 ± 27.9	74.3 ± 27.8	74.8 ± 26.7	72.2 ± 33.0	0.52
Emotional function ^b	84.7 ± 16.8	80.4 ± 23.3	83.8 ± 21.1	81.9 ± 21.6	0.66
Cognitive function ^b	85.5 ± 19.5	80.6 ± 22.7	83.7 ± 21.6	85.1 ± 20.4	0.58
Social function ^b	81.0 ± 23.2	75.6 ± 26.7	82.7 ± 24.5	79.9 ± 25.5	0.33
Fatigue ^c	22.9 ± 22.4	27.9 ± 23.6	25.6 ± 23.0	32.2 ± 27.4	0.10
Nausea/vomiting ^c	3.0 ± 8.5	4.8 ± 12.6	3.9 ± 9.1	4.5 ± 11.8	0.91
Pain ^c	16.3 ± 22.0	18.0 ± 24.8	13.4 ± 20.5	15.0 ± 23.1	0.76
Dyspnea ^c	13.2 ± 23.2	13.7 ± 22.1	15.0 ± 22.3	18.4 ± 26.4	0.50
Insomnia ^c	16.9 ± 23.9	17.8 ± 28.4	20.6 ± 28.5	20.8 ± 27.2	0.79
Appetite loss ^c	5.7 ± 15.7	6.8 ± 18.3	4.6 ± 12.4	8.2 ± 21.0	0.66
Constipation ^c	7.5 ± 18.0	9.9 ± 21.4	7.8 ± 17.7	11.8 ± 25.3	0.64
Financial problems ^c	9.7 ± 21.2	16.4 ± 26.7	6.3 ± 16.2	8.3 ± 21.2	0.02
EORTC QLQ-CR38 subscales					
Body image ^b	77.7 ± 21.4	64.5 ± 31.4	77.8 ± 24.4	78.9 ± 22.5	0.001
Future perspective ^b	68.8 ± 26.1	63.4 ± 29.7	68.4 ± 28.8	72.1 ± 26.7	0.32
Sexual functioning ^b	30.3 ± 28.6	22.5 ± 25.2	16.3 ± 21.8	11.6 ± 16.9	<0.001
Sexual enjoyment ^b	62.1 ± 29.4	48.1 ± 25.0	61.1 ± 23.4	44.4 ± 23.6	0.06
Micturition problems ^c	22.7 ± 15.1	25.2 ± 16.6	25.9 ± 16.7	29.5 ± 18.0	0.08
Chemotherapy side effects ^c	11.0 ± 14.1	15.2 ± 16.8	13.3 ± 16.6	18.6 ± 19.8	0.07
GI problems ^c	20.4 ± 15.2	21.6 ± 16.1	17.7 ± 13.8	19.1 ± 15.3	0.54
Male sexual dysfunction ^c	60.1 ± 32.2	72.6 ± 33.2	79.4 ± 27.8	85.1 ± 27.2	0.002
Female sexual dysfunction ^c	45.2 ± 33.0	42.2 ± 30.1	27.4 ± 34.4	16.7 ± 24.8	0.16
Stoma-related problems ^c	23.6 ± 16.2	29.4 ± 21.2	24.6 ± 21.8	21.2 ± 14.8	0.31
Weight loss ^c	7.3 ± 16.2	9.6 ± 19.6	10.6 ± 21.6	15.6 ± 28.1	0.04

QoL after Pelvic Exenteration



“Advanced ColoRectalCancer” in the elderly; *Just do it?*

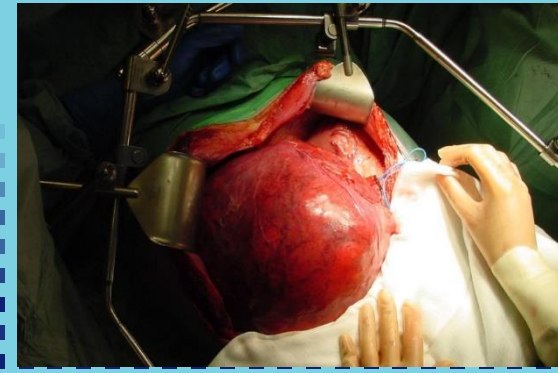
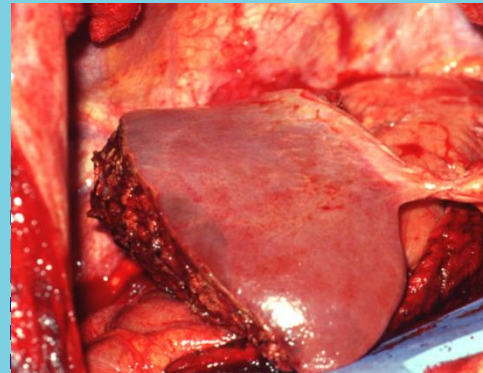
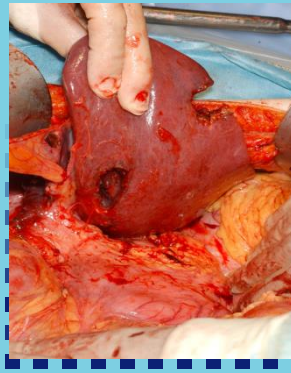
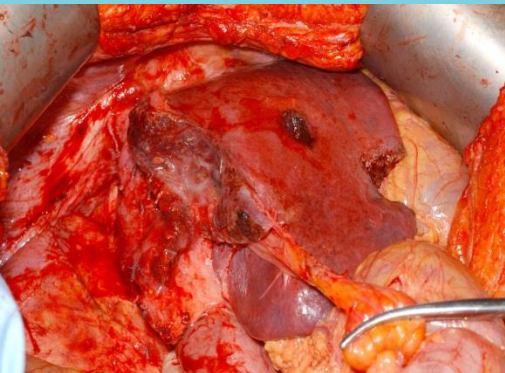


SELECTION; MAIN PROBLEM
AGE NOT A MAIN DETERMINANT

“Advanced ColoRectalCancer” in the elderly; *Just do it !!!!*

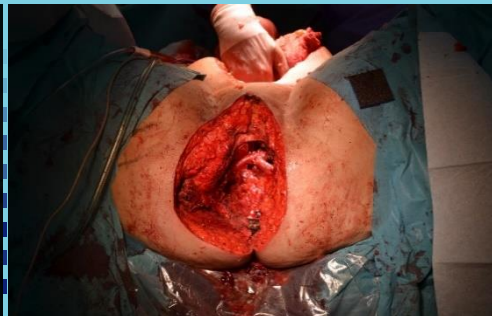
- ColoRectalLiverMetastases

- Low morbidity, Low mortality, Good QoL and Good survival



“Advanced ColoRectalCancer” in the elderly; *Just do it !!!!*

- Pelvic Exenterations for **Locally Advanced Rectal Cancer** and **Locally Recurrent Rectal Cancer**
 - High morbidity, High mortality, Good QoL and Good survival



Just do it !!!!

